



Data Integration Initiative Semi Annual Report October 2009

**State of North Carolina
Office of the State Controller**

**David McCoy
State Controller
October 1, 2009**

Table of Contents

I. Background	1
II. Data Integration Program	2
(A). Objectives	2
(B). Summary.....	2
(C). Approach.....	3
(D). Project Updates.....	5
(E). Future Costs.....	10
(F). Next Steps.....	13
III. Summary	14
Appendix	
A. SESSION LAW 2007-323, HOUSE BILL 1473	15
B. SESSION LAW 2008-107, HOUSE BILL 2436	17
SESSION LAW 2008-118, HOUSE BILL 2438	18
C. SESSION LAW 2009-451, Senate Bill 202	19
D. NCBICC Communications Hub	21
E. Community of Interest.....	22
F. Current SAS Users - State Agencies and Programs.....	23

I. Background

Today, most state agencies deliver services through a number of different business programs which are supported by multiple, disparate information technology systems. As a result, information is spread across many siloed systems which are often supported using old architecture with data that is complex, out-of-date, or stored in inconsistent formats that may work well for independent programs, but are not easily accessible in a customer-focused, service-driven environment.

To improve customer service and help the citizens of North Carolina, it is critical that information be shared across State programs. State agencies require a business intelligence solution that will enable all stakeholders to access a secured flow of information with a high degree of accuracy and consistency.

As directed by Session Law 2007-323, House Bill 1473 (Appendix A), a Strategic Plan for Statewide Data Integration was prepared by the Office of the State Controller in cooperation with the State Chief Information Officer and delivered to the Legislature on April 30, 2008. This plan defined data integration as the capability of merging and reconciling dispersed data for analytical purposes through the use of standardized tools to support quick, agile, event-driven analysis for business. It recommended the establishment of an environment where agencies and programs partner to develop business solutions which are enabled by technology. The plan recognized that communication is the key to success and suggested the State encourage the establishment of “communities of interest” to support the needs of focused business areas and a business intelligence competency center to support enterprise solutions to business problems.

Session Law 2008-107, House Bill 2436, (Appendix B) directed the implementation of the Strategic Plan for Data Integration including the development of the Business Intelligence Competency Center (BICC) to support agencies’ and programs’ need for information.

Senate Bill 202 Session Law 2009-451, (Appendix C) directed the Office of the State Controller, in coordination with the Chief Information Officer, to report on the future costs for implementing the BEACON Data Integration Program, including outside vendor costs and to include a detailed explanation of the potential costs and efforts participating agencies are making to reduce these costs. This report summarizes future data integration costs and efforts to reduce those costs.

II. Data Integration Program

The goal of the Data Integration Program is to provide a statewide framework that promotes and supports the development of applications which transform data into information for business.

The Strategic Plan for Data Integration profiles the current state of data warehousing and data analytics and identifies long-term goals. It recommends a framework upon which the data integration initiative can grow and realize its objectives. The projects undertaken through this initiative will be limited by the need, quality and availability of statewide data. Data integration projects will not address the need for replacement and/or the consolidation of old or outdated disparate applications; rather, they will focus on developing an approach to provide secure, reliable information to enable statistical, analytical and predictive modeling.

(A). Objectives

The objective of the Data Integration Program is to develop a framework and the business infrastructure needed to expand and promote the use of data (as an information asset) in support of strategic business operations. This framework is based on collaboration and relies on stakeholders coming together to identify business needs and data access points.

For North Carolina to recognize the value of data integration and the beneficial use of data-based analytics, senior leadership will be called on to lead the charge to a cultural shift which deemphasizes the concept of agency ownership of data and promotes data sharing. These State government business leaders ultimately must accept their role as stewards of the State's data assets rather than data owners.

(B). Summary

The Strategic Plan for Statewide Data Integration defines "integration" as "the capability of merging and reconciling dispersed data for analytical purposes through the use of standardized tools to support quick, agile, event-driven analysis for business."

The implementation of the Strategic Plan for Statewide Data Integration is focused on the development of an environment that promotes the use of business intelligence to make better informed decisions. Its foundation is based on the establishment of Communities of Interest and the implementation of a North Carolina Business Intelligence Competency Center (NCBICC).

The Community of Interest's goal is to engage stakeholders with varying responsibilities to collaborate on enterprise issues in support of solution development. Their focus is to identify needs and assist in ensuring project success (Appendix D). The NCBICC is an organization that is based on industry best practice. Its role is to support and manage the business need for analytics by offering an infrastructure that assists with the design, development and implementation of business intelligence applications.

(C). Approach

The objective of the Strategic Plan for Statewide Data Integration is to develop the framework that provides the State with the ability to expand and promote the use of the enterprise software which supports statewide data integration, sharing, reporting and advanced analytics. The merging and transformation of disparate data into integrated information requires collaboration, tools, knowledge and expertise.

The initial State data integration effort has focused on the criminal justice data integration pilot program and its business objectives. Additional integration efforts are underway in the areas of human capital management (NC WORKS II) and accountability and transparency of North Carolina state government spending (NC Open Book).

1. Develop Communities of Interest

To foster collaboration, Communities of Interest will be established. This practice will unite business and technical users to conduct needs analysis across a focus area rather than within a siloed business area. Projects that demonstrate the strategic vision for information sharing will be encouraged to work under the support of the BICC for development and implementation.

The Public Safety Community of Interest, for example, composed of the Criminal Justice Advisory Committee and agency partners, was established to identify the business requirements and to support the development of the Criminal Justice Law Enforcement Automated Data Services (CJLEADS) application.

The Community of Interest allows project scope and business requirements to incorporate the perspective of a wider range of business users and enables a system to more effectively meet the information needs of those project stakeholders.

2. Leverage a Common Business Intelligence and Analytics Platform

The Strategic Plan for Data Integration recommends establishing a common business intelligence and analytics platform. Under the State's Enterprise License Agreement with SAS Institute, Inc, the SAS toolsets were identified as the enterprise analytics tool for the State's Executive Branch.

The current State users of the SAS toolset will be identified, and efforts to gain support from this community to create a user forum for collaboration and sharing experience and information will be undertaken. This forum will establish a communication link that will offer new and existing users an opportunity to improve their understanding and application of the SAS toolsets.

3. Develop an NC Business Intelligence Competency Center

The Data Integration Program recommends establishing a Business Intelligence Competency Center to develop business and technical proficiency in data integration and business intelligence and to act as an internal resource for State data integration projects. The NCBICC is a permanent organization that will support data integration and the use of analytics.

The NCBICC will serve as a collaborative forum that leverages the knowledge and experience gained from previous data integration projects to provide guidance and best practice information to future data integration projects. Based on knowledge gained from the CJLEADS, NC WORKS II, and NC Open Book project, the NCBICC will develop policies, procedures and best practices for business requirements gathering, data governance, and system implementation to support future projects. As resource competencies grow in both the data integration methodology and the SAS integration and analytics toolset, the State will be able to leverage this experience and expertise to streamline future data integration projects.

(D). Project Updates

To establish a repository of data integration policy, procedures and best practices, the Data Integration Program will work closely with agency project teams to understand challenges, provide assistance and incorporate lessons learned into the data integration strategy.

1. Data Integration Projects

a. Criminal Justice Data Integration

In 2008, legislation directed the Office of the State Controller, in cooperation with the State Chief Information Officer and the BEACON Steering Committee, to manage the development and implementation of a Criminal Justice Data Integration Pilot Program in Wake County.

The purpose of the CJLEADS pilot application is to establish a framework for the integration of criminal justice information. The pilot objectives include:

- Provide a comprehensive view of an offender through a single portal, allowing for identification of the offender through a photographic image.
- Provide an offender watch capability to alert the criminal justice professional when a person of interest has a change in status such as release from custody or an arrest.

SAS Institute, Inc. was selected as the vendor to design and develop the pilot application. CJLEADS has been hosted in a SAS technical environment during the development and testing of the pilot application. Data Integration Program resources and State project team members from eight State agencies are collaboratively working to refine the data requirements and system functionality for the pilot application.

Since May 1, 2009, the CJLEADS pilot application has been available to the State project team for a period of user acceptance testing to verify and confirm the integrated data and to validate the system functionality. Testing of the application with “live” data demonstrated the complexity of merging disparate data sources and the lack of consistent data content, and identified the need to incorporate additional information and end user tools to enhance the usability of the pilot application. The project team has worked with SAS to refine the data and application functionality and to continue to incorporate additional sources of data.

The project team has identified the remaining design and development activities for Phase I of the pilot and is developing plans to migrate the pilot to a more robust technical environment for rollout to Wake County by the end of FY 2009 – 2010. Phase II design and development efforts will continue along with plans for expansion of the application statewide in FY 2010 – 2011 and FY 2011- 2012. Funding estimates for Phase I and Phase II activities and expansion to a larger user community are provided in the future funding requirements section of this document.

Data Integration Program resources have been actively engaged in guiding the State project team efforts and providing coordination and communication with the SAS project team.

For more information on the CJLEADS pilot program, please see the CJLEADS Hosting Recommendation and Funding Requirements Report, August, 2009, and the CJLEADS Quarterly Update Report, October 1, 2009, on the OSC website, <http://www.osc.nc.gov/cjleads/cjleads.html>.

b. NC Workforce Outlook and Retirement Knowledge System (NC WORKS) Phase II

The NC Office of State Personnel (OSP) is in Phase II of the NC WORKS project. This initiative is the first comprehensive effort to develop a strategic workforce planning data warehouse application to gather and consolidate Human Resource intelligence and provide advanced analytics, predictive modeling, and forecasting capabilities to State agencies.

NC WORKS will serve to support Governor Beverly Perdue's Executive Order #3 by providing agencies with the capability to proactively manage and forecast talent needs necessary to achieve agency strategic goals. This capability positions agencies to be able to analyze employee data, plan for, forecast and predict retirements and other attrition.

The goal for NC WORKS is to help State agencies maintain optimum staffing by leveraging technology to aggregate State employment data and combine selected external sources of industry and education information into a single and consistent statewide reporting and modeling platform. NC WORKS will integrate data from the State Human Resource System (BEACON), Teachers' and State Employees' Retirement System, Employment Security Commission, United States Census Bureau, National Center for Education Statistics and other sources of industry employment and education information.

OSP awarded a contract to SAS Institute, Inc. to implement the SAS Human Capital Management software as the platform for the NC WORKS project. This contract included installation and development of the application, training materials, system documentation and knowledge transfer to State resources for the on-going support and maintenance of the application.

NC WORKS will be deployed in multiple releases. The initial deployment will target five pre-selected agencies that will serve as pilot users. The project timeline

estimates the pilot implementation of the initial release of NC WORKS Phase II in early 2010.

Following the completion of the vendor contract, OSP will enter into NC WORKS Phase III of this project. OSP will continue to partner with BEACON to ensure the maximization of data integration efforts to fulfill the State's business requirements for successful human capital management. Combined efforts will focus on consolidation of Human Resource intelligence and the provision of workforce planning decision support, reporting and analytical capabilities.

Phase III will include the following activities:

- infrastructure enhancements to enable a statewide rollout
- implementation of a change management system
- development and execution of a statewide rollout strategy to the user community
- integration of additional data sources into the warehouse
- development of additional forecasting and predictive models and custom reports
- training opportunities for end users
- research possible shared user interfaces and the alignment of more succinct reporting strategies between BEACON and NC WORKS

NC WORKS Phase III requests funding for infrastructure enhancements, ITS Project Management and the purchase of non-public data sources. Funding estimates for Phase III activities are provided in the future funding requirements section of this document.

Data Integration Program resources will work closely with the OSP team to provide project oversight and guidance to the NC WORKS project team and to encourage participation of the OSP team in the development of the NCBICC.

c. NC OpenBook

In support of Governor Beverly Perdue's Executive Order No. 4, the Office of State Budget and Management (OSBM), working with the Office of Information Technology Services (ITS), the Department of Administration (DOA), the Office of State Auditor (OSA) and the Office of the State Controller (OSC), has established NC OpenBook to provide a single, searchable website on State spending for grants and contracts.

The goal of the NC OpenBook website project is to track grants and contracts as a continuum from the opportunity to bid on a contract or obtain a grant, through its award, subsequent payments and results of the contract or grant activity. It was recognized that the tracking of American Recovery and Reinvestment Act (ARRA) funds followed the same path. To facilitate both efforts and ensure the State received a lasting return on its investment in ARRA tracking, NC OpenBook and ARRA oversight were merged into a single project. The OSBM is working with the Office of Economic Recovery and Investment Oversight for North Carolina (OERION) to facilitate this effort.

In March, 2009, OSBM launched the interim NC OpenBook website to provide the ability to search on grant information from the Community Resource Information System and Grant Information Center, and contract information from Department of Administration's Interactive Purchasing System, E-Procurement system and State Construction website. Links were also provided to the Department of Transportation's Highway Construction website.

The project team continues to define the data and business requirements for developing a data warehouse to support tracking and reporting of grant and contract information including requirements for OERION oversight of federal recovery funds. The NC OpenBook/OERION project will leverage the SAS Enterprise License Agreement and will use SAS data integration and analytic technologies to implement a data warehouse solution to improve data quality, develop data relationships clarify the linkages between awards and spending, and broaden the ranges of contract awards and grant awards being reported. The interim NC OpenBook site will continue to be maintained while the data warehouse solution is being developed.

The OERION development was given priority due to the required schedule for ARRA reporting and oversight. The first release of OERION is planned for November 1, 2009. The first release of the SAS-based NC OpenBook is planned for January 1, 2010.

Future enhancements for the NC OpenBook may include:

- Completion of the integration of the Community Resource Information Center application with ncgrants.gov (formerly Grants Information Center). These applications provide data to NC OpenBook/OERION.
- Expansion of ncgrants.gov to include tracking of grants made to local governments.
- Improved data validation among state systems such as establishing an internally generated ID to assist in reconciliation of grant disbursements.
- Additional direct data feeds from smaller state systems.
- Tracking of all federal awards rather than just ARRA funds.
- Investigation into establishing a master vendor database based on NC OpenBook experience.
- Adoption of DUNS as state standard for identifying and reconciling vendors.
- Expanding coverage in NC OpenBook to account for all state spending rather than only grants and contracts over \$10,000.
- Provide more frequent updates to NC OpenBook – Executive Order #4 requires updates every 30 days.

Funding estimates for future enhancement of NC OpenBook are provided in the future funding requirements section of this document.

Data Integration Program resources will work closely with the NC OpenBook team to provide project oversight and guidance and to encourage participation of the project stakeholders in the development of the NCBICC.

2. Enterprise Data Warehouse Shared Services Utility

The Enterprise Data Warehouse (EDW) Shared Service utility was implemented by the Office of Information Technology to offer agencies and programs with small to midsized needs the ability to utilize a shared technical environment. This environment was not mandatory to the implementation of data integration, but it enabled the State, where appropriate, to leverage economies of scale to provide a software and hardware infrastructure.

The EDW is a receipts-based offering by ITS to support the infrastructure needed for data integration applications. The EDW supported three customer applications including Commerce's Economic Development Intelligence System, Office of State Personnel's NC WORKS pilot and Office of State Budget's NC OpenBook application. To establish a cost effective service, the EDW needed between six and eight customer applications using the shared platform. Economic and budgetary constraints, however, have prohibited additional customers from initiating projects to leverage the EDW. As a result, during an operational review, ITS determined that it was no longer economically feasible to offer the EDW shared service utility to this limited number of customer applications.

ITS worked with each of the organizations using the EDW to minimize the cost and impact to the agencies and to assist them in migrating their applications to alternative platforms.

3. NCBICC

The NCBICC planning effort is underway. Two business and technology analyst positions will assist in the development of the NCBICC and support the data integration project teams. Agencies and programs currently involved in data integration activities have met to begin discussions on the planning and development of the NCBICC.

Initial discussions considered establishing a data integration user group that would meet periodically and act as a conduit to sharing data integration experiences, updates for on-going projects within the State, and technical tool information.

Data Integration resources continue to actively support the CJLEADS pilot application development, and provide oversight and guidance to the NC WORKS II and NC Open Book projects. Based on involvement and interaction with these teams, the data integration team will begin to establish the NCBICC repository of best practices documentation and guidelines for future projects based on lessons learned in the current data integration efforts.

(E). Future Costs

Data Integration Costs for FY 2009 – 2010 will be approximately \$13.2 Million. These costs include funding for the continued design, development and implementation of the CJLEADS pilot program in Wake County, funds committed to the NC WORKS II and NC Open Book programs, renewal of the SAS Enterprise License Agreement and personnel resources associated with Data Integration and the CJLEADS pilot.

In the initial years of the Data Integration Initiative, funds have been made available to assist agencies in initiating their projects and supporting the design and development phase of data integration applications. When applications are implemented, the on-going operations and maintenance of those applications becomes the responsibility of the agencies.

The Data Integration Initiative has also provided funding for the SAS Enterprise License Agreement to support unlimited licensing of a standard enterprise data integration and analytics platform. To fully leverage the SAS ELA and encourage increased usage of the standard platform, it is recommended that the State fully fund the cost of the ELA and minimize agencies' cost for using the SAS toolsets for data integration applications.

Funding requirements for FY 2010 – 2011 and FY 2011 – 2012 includes estimated costs for 1) continuing the design, development, implementation and subsequent statewide rollout of CJLEADS, 2) expansion of the design and development of the NC WORKS II application along with rollout to a statewide user community, 3) expansion of the design and development of the NC OpenBook application, 4) renewal of the SAS Enterprise License Agreement, 4) State personnel resources to support the data integration effort, and 5) funds to assist other agencies with future data integration projects as needs are identified and prioritized.

To support data integration applications long-term, agencies should make expansion budget requests to support the on-going operations and maintenance of their individual integration and analytics applications.

Funding Requirements for Data Integration:

Data Integration Future Costs

	<u>FY 2009 - 2010</u>	<u>FY 2010 - 2011</u>	<u>FY 2011 - 2012</u>
<u>Sources of Funds:</u>			
Data Integration funds remaining as of June 30, 2009	\$4,710,109		
Criminal Justice funds remaining as of June 30, 2009	\$2,914,409		
BEACON Funds Available	\$7,390,000		
Data Integration funds remaining as of June 30, 2010		\$1,837,790	
Total Funds Available	<u>\$15,014,518</u>	<u>\$1,837,790</u>	<u>\$0</u>
<u>Data Integration Costs:</u>			
CJLEADS Pilot Program Development/Hosting Costs	(\$9,128,813)	(\$9,666,492)	(\$8,554,192)
CJLEADS Personnel Expenditures	(\$273,660)	(\$273,660)	(\$273,660)
OSP NC WORKS II Project	(\$300,000)	(\$183,620)	(\$90,620)
OSBM NC Open Book Project	(\$874,354)	(\$500,000)	
Data Integration Personnel Expenditures	(\$99,901)	(\$199,802)	(\$199,802)
Executive Branch ELA Renewal	(\$2,500,000)	(\$3,000,000)	(\$3,000,000)
Project Initiation Funds		(\$1,000,000)	(\$2,000,000)
Total Costs	<u>(\$13,176,728)</u>	<u>(\$14,823,574)</u>	<u>(\$14,118,274)</u>
Balance	<u>\$1,837,790</u>	<u>(\$12,985,784)</u>	<u>(\$14,118,274)</u>
Future Funding Requirements		<u>\$12,985,784</u>	<u>\$14,118,274</u>

Efforts to Reduce Data Integration Costs

Standard Analytics Platform

By establishing the SAS integration and analytics toolset as the common business intelligence and analytics platform for the Executive branch, the State and its agencies will be able to reduce costs of current and future data integration projects. The SAS Enterprise License Agreement provides Executive branch agencies unlimited license and usage of defined SAS integration and analytic toolsets. The annual fee for the unlimited license provides the State with a significant cost savings from standard market license costs.

The Office of Information Technology provides a cost allocation model to recover the maintenance fees associated with SAS integration and analytic toolsets. The cost allocation model is based on the number and types of licenses utilized by each agency application. As the use of the SAS analytics platform increases throughout State, the cost of the SAS maintenance fees for each application will decrease.

The Enterprise License Agreement was funded in FY 2008 and FY 2009 through special BEACON Data Integration Funds. The cost of renewing the license for FY 2010 is included in the remaining special funds from BEACON Data Integration. In order to fully support a standard enterprise integration and analytics platform, and to further encourage agencies to utilize the SAS toolset, the OSC recommends that a general fund appropriation be established to fund the annual ELA renewal cost of \$3 Million.

SAS Training

In addition to the benefit of unlimited licensing, SAS training credits will be incorporated into the structure of the ELA. SAS' Enterprise Professional Training Offer incorporates a defined number of training credits to provide a more cost effective training approach. These credits can be used for a variety of training opportunities including SAS classroom training, web-based training, and/or customized training to meet a specific agency's need. General training classes can be offered to educate the State's data integration users' group about SAS tool capabilities.

The training credits will be managed centrally to ensure that all agencies engaged in data integration efforts have the opportunity to benefit from available SAS training.

Participation in the NCBICC

The purpose of the NCBICC is to develop business and technical proficiency in data integration and business intelligence and to act as an internal resource for State data integration projects. The NCBICC is intended to serve as a collaborative forum that leverages the knowledge and experience gained from previous data integration projects to provide guidance and best practice information to future data integration projects.

Agencies involved in data integration activities have been asked to actively participate in the developing and sustaining the NCBICC. Project teams will share information and lessons learned about their projects to continue to refine data integration processes and best practices documented by the NCBICC. As resource competencies grow and documentation is refined based on lessons learned, the State will be able to improve the efficiency and effectiveness of future data integration projects.

(F). Next Steps

1. Data Integration Projects

Data Integration Program resources will continue to provide active management and support for the CJLEADS criminal justice data integration pilot and will provide oversight for the on-going data integration projects. Approach, processes and lessons learned from these projects will be incorporated into the data integration framework.

2. Community of Interest

Communities of interest are expected to grow with the State's growing need for integrated information. The Data Integration Program team will be available to assist agencies in developing a community of interest for their business area.

3. NCBICC

The Office of the State Controller will continue to work with the Office of Information Technology Services and agencies currently engaged in data integration activities to establish the foundation for the NCBICC. A governance program will be established for the NCBICC. The governance program will include the charter, mission, goals, roles and responsibilities. Performance metrics will be developed to assess the NCBICC's value and areas for continuous improvement.

The NCBICC will develop a communications plan and collaborate with ITS to promote continued and expanded use of the State's Enterprise License Agreements.

III. Summary

The long-term vision of statewide data integration is to maximize the State's data assets for efficient and informed business decisions on which the outcomes can be monitored and acted upon. The critical success factors associated with this effort include; cultural transformation, data policy alignment, data governance and standards, resources availability, cross agency communication, and technology support. The data integration infrastructure including communities of interest, common analytics platform and the NCBICC, are being developed to align these critical success factors.

Funding requirements highlighted in this document will support the continued design and development of the CJLEADS, NC WORKS, and NC OpenBook projects, enable the renewal of the SAS Enterprise License Agreement, provide resources to establish the NCBICC, and support the initiation of new data integration projects as needs and priorities allow.

A. SESSION LAW 2007-323, HOUSE BILL 1473

AN ACT TO MAKE BASE BUDGET APPROPRIATIONS FOR CURRENT OPERATIONS OF STATE DEPARTMENTS, INSTITUTIONS, AND AGENCIES, AND FOR OTHER PURPOSES.

BEACON DATA INTEGRATION

SECTION 6.8.(a) The Office of the State Controller, in cooperation with the State Chief Information Officer, shall develop a Strategic Implementation Plan for the integration of databases and the sharing of information among State agencies and programs. This plan shall be developed and implemented under the governance of the BEACON Project Steering Committee and in conjunction with leadership in State agencies and with the support and cooperation of the Office of State Budget and Management. This plan shall include the following:

- (1) Definition of requirements for achieving statewide data integration.
- (2) An implementation schedule to be reviewed and adjusted by the General Assembly annually based on funding availability.
- (3) Priorities for database integration, commencing with the integration of databases that the BEACON Project Steering Committee identifies as most beneficial in terms of maximizing fund availability and realizing early benefits.
- (4) Identification of current statewide and agency data integration efforts and a long-term strategy for integrating those projects into this effort.
- (5) Detailed cost information for development and implementation, as well as five years of operations and maintenance costs.

While it is the intent that this initiative provide broad access to information across State government, the plan shall comply with all necessary security measures and restrictions to ensure that access to any specific information held confidential under federal and State law shall be limited to appropriate and authorized persons.

SECTION 6.8.(b) The State Controller shall serve as Chairman of the BEACON Project Steering Committee (Committee). The other members of the Committee shall include the State Chief Information Officer, the State Personnel Director, the Deputy State Budget Director, and the Department of Transportation's Chief Financial Officer.

SECTION 6.8.(c) Of the funds appropriated from the General Fund to the North Carolina Information Technology Fund, the sum of five million dollars (\$5,000,000) for the 2007-2008 fiscal year shall be used for BEACON data integration as provided by subsection (a) of this section. The Office of the State Controller, in coordination with State agencies and with the support of the Office of State Budget and Management, shall identify and make all efforts to secure any federal matching funds or other resources to assist in funding this initiative.

Funds authorized in this section may be used for the following purposes:

- (1) To support the cost of a project manager to conduct the activities outlined herein reportable to the Office of the State Controller.
- (2) To support two business analysts to provide support to the program manager and agencies in identifying requirements under this program.
- (3) To engage a vendor to develop the Strategic Implementation Plan as required herein.
- (4) To conduct integration activities as approved by the BEACON Project Steering Committee. The State Chief Information Officer shall utilize current enterprise licensing to implement these integration activities.

SECTION 6.8.(d) The Office of the State Controller, with the assistance of the State Chief Information Officer, shall present the Strategic Implementation Plan outlined by this section to the 2007 Regular Session of the General Assembly when it convenes in 2008 for action as deemed appropriate. This plan shall be completed not later than April 30, 2008.

Prior to the reconvening of the 2007 Regular Session of the General Assembly in 2008, the Office of the State Controller shall provide semiannual reports to the Joint Legislative Oversight Committee for Information Technology. Written reports shall be submitted not later than October 1, 2007, and April 1, 2008, with presentations of the reports at the first session of the Joint Legislative Oversight Committee on Information Technology following the written report submission date. The Joint Legislative Oversight Committee on Information Technology shall then report to the Joint Legislative Commission on Governmental Operations.

SECTION 6.8.(e) Neither the development of the Strategic Information Plan nor the provisions of this section shall place any new or additional requirements upon The University of North Carolina or the North Carolina Community College System.

Ratified July 31, 2007

B. SESSION LAW 2008-107, HOUSE BILL 2436

AN ACT TO MODIFY THE CURRENT OPERATIONS AND CAPITAL APPROPRIATIONS ACT OF 2007, TO AUTHORIZE INDEBTEDNESS FOR CAPITAL PROJECTS, AND TO MAKE VARIOUS TAX LAW AND FEE CHANGES.

BEACON DATA INTEGRATION

SECTION 6.16.(a) The Office of the State Controller, in cooperation with the State Chief Information Officer, shall begin implementation of the Beacon Strategic Plan for Data Integration, issued in April 2008. This plan shall be implemented under the governance of the BEACON Project Steering Committee and in conjunction with leadership in appropriate State agencies and with the support and cooperation of the Office of State Budget and Management.

While it is the intent that this initiative provide broad access to information across State government, the plan shall comply with all necessary security measures and restrictions to ensure that access to any specific information held confidential under federal and State law shall be limited to appropriate and authorized persons.

SECTION 6.16.(b) The State Controller shall serve as the Chairman of the BEACON Project Steering Committee. The other members of the committee shall be the State Chief Information Officer, the State Treasurer, the Attorney General, the Secretary of Correction, the Administrative Officer of the Courts, the State Budget Officer, and the Chief Financial Officer of the Department of Transportation.

SECTION 6.16.(c) Of the funds appropriated from the General Fund to the North Carolina Information Technology Fund, the sum of five million dollars (\$5,000,000) for the 2008-2009 fiscal year shall be used for BEACON data integration as provided by subsection (a) of this section. Funds to support this activity shall also be the unexpended balance from the funds appropriated for BEACON/Data Integration Funds in Section 5.3(b) of S.L. 2007-323. The Office of the State Controller, with the support of the Office of State Budget and Management, shall identify and make all efforts to secure any matching funds or other resources to assist in funding this initiative.

SECTION 6.16.(d) Funds authorized in this section may be used for the following purposes:

- (1) To support the cost of a project manager to conduct the activities outlined herein reportable to the Office of the State Controller.
- (2) To support two business analysts to provide support to the program manager and agencies in identifying requirements under this program.
- (3) To establish a Business Intelligence Competency Center (BICC), a collaborative organization comprised of both technical and business stakeholders, to support and manage the business need for analytics through the development of standards and best practices.
- (4) To engage a vendor to implement the Strategic Implementation Plan as required herein.
- (5) To conduct integration activities as approved by the BEACON Project Steering Committee. The State Chief Information Officer shall use current enterprise licensing to implement these integration activities.

SECTION 6.16.(e) Prior to the convening of the 2009 General Assembly, the Office of the State Controller shall provide semiannual reports to the Joint Legislative Oversight Committee for Information Technology. Written reports shall be submitted not later than October

1, 2008, and April 1, 2009, with presentations of the reports at the first session of the Joint Legislative Oversight Committee on Information Technology following the written report submission date. The Joint Legislative Oversight Committee on Information Technology shall then report to the Joint Legislative Commission on Governmental Operations.

SECTION 6.16.(f) Neither the implementation of the Strategic Information Plan nor the provisions of this section shall place any new or additional requirements upon The University of North Carolina or the North Carolina Community College System.

Ratified July 16, 2008

SESSION LAW 2008-118, HOUSE BILL 2438

AN ACT TO MAKE TECHNICAL, CLARIFYING, AND OTHER MODIFICATIONS TO THE STATE BUDGET.

SECTION 2.3. Section 6.16(b) of S.L. 2008-107 reads as rewritten:

"SECTION 6.16.(b) The State Controller shall serve as the Chairman of the BEACON Project Steering Committee. The other members of the committee shall be the State Chief Information Officer, the State Treasurer, the Attorney General, the Secretary of Correction, the Administrative Officer of the Courts, the State Budget Officer, the Secretary of Administration, and the Chief Financial Officer of the Department of Transportation."

Ratified July 18, 2008

C. SESSION LAW 2009-451, Senate Bill 202

AN ACT TO MAKE BASE BUDGET APPROPRIATIONS FOR CURRENT OPERATIONS OF STATE DEPARTMENTS, INSTITUTIONS, AND AGENCIES, AND FOR OTHER PURPOSES.

BEACON DATA INTEGRATION

SECTION 6.9.(a) The Office of the State Controller, in cooperation with the State Chief Information Officer, shall continue the implementation of the BEACON Strategic Plan for Data Integration, issued in April 2008. The plan shall be implemented under the governance of the BEACON Project Steering Committee and in conjunction with leadership in appropriate State agencies and with the support and cooperation of the Office of State Budget and Management.

While it is the intent that this initiative provide broad access to information across State government, the plan shall comply with all necessary security measures and restrictions to ensure that access to any specific information held confidential under federal or State law shall be limited to appropriate and authorized persons.

SECTION 6.9.(b) The Office of State Controller shall give the Criminal Justice Data Integration Pilot Program first priority for funding and for system development and implementation.

The Office of State Controller shall determine the amount of funding required to (i) fully support the Criminal Justice Data Integration Pilot Program effort and (ii) develop full operational capability in Wake County during the 2009-2010 fiscal year. The Office of State Controller shall not otherwise obligate these funds.

SECTION 6.9.(c) By September 1, 2009, the Office of State Controller shall report to the Joint Legislative Oversight Committee on Information Technology and to the Fiscal Research Division on (i) funding requirements and sources of funds for the Criminal Justice Data Integration Pilot Program for the 2009-2010 fiscal year and (ii) the anticipated uses of any remaining funds for the BEACON Data Integration Program. The Office of State Controller shall spend funds to support the BEACON Data Integration Program only as is specifically authorized in Section 6.16(d) of S.L. 2008-107.

By October 1, 2009, the Office of State Controller, in coordination with the State Chief Information Officer, shall also report on future costs for implementing the BEACON Data Integration Program, including outside vendor costs. This report shall include a detailed explanation of potential costs and the efforts participating agencies are making to reduce these costs. This report shall be presented to the Joint Legislative Oversight Committee on Information Technology and written reports shall be provided to the House of Representatives and Senate Appropriations Committees and to the Fiscal Research Division.

CRIMINAL JUSTICE DATA INTEGRATION PILOT PROGRAM

SECTION 6.10.(a) The Office of the State Controller, in cooperation with the State Chief Information Officer and under the governance of the BEACON Project Steering Committee, shall continue the development of the Criminal Justice Data Integration Pilot Program in Wake County as specified in Section 6.15 of S.L. 2008-107. The Office of State Controller shall achieve and demonstrate full operational capability of the pilot program in Wake County before the system is expanded to other areas of the State.

SL2009-0451 Session Law 2009-451 Page 15

SECTION 6.10.(b) The Criminal Justice Data Integration Pilot Program shall continue to comply with all necessary security measures and restrictions to ensure that access to any specific information held confidential under federal and State law shall be limited to

authorized persons.

SECTION 6.10.(c) The Office of State Controller shall develop a detailed plan for the statewide expansion of the Criminal Justice Data Integration Pilot Program. This plan shall include the following:

- (1) An implementation schedule;
- (2) The requirements individual users must meet to participate in the program;
- (3) Detailed cost information for the development and implementation of a statewide system, including any user costs;
- (4) A governance structure for management and oversight of the system; and
- (5) Any other issues associated with the implementation of the system.

The Office of State Controller shall submit this plan to the House of Representatives and Senate Appropriations Committees, the Joint Legislative Oversight Committee on Information Technology, and the Fiscal Research Division by January 31, 2010.

SECTION 6.10.(d) The Office of State Controller shall work with the data integration software vendor to ensure that licenses are obtained at the least possible cost.

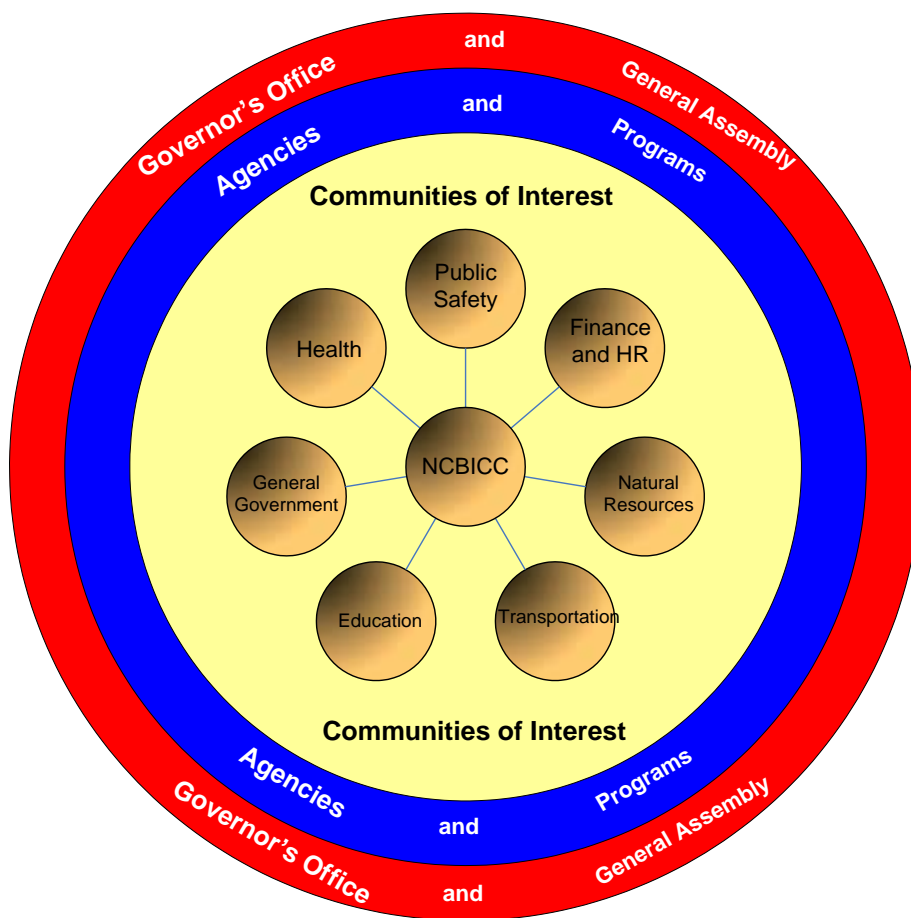
SECTION 6.10.(e) A State agency data center shall host the Criminal Justice Data Integration Pilot Program. The Office of State Controller shall identify a State data center to host the program and shall report its recommendation to the Joint Legislative Oversight Committee on Information Technology by August 31, 2009.

SECTION 6.10.(f) Funds appropriated for the Criminal Justice Data Integration Pilot Program shall only be used for that program. The Criminal Justice Data Integration Pilot Program shall have first priority for funds available to the BEACON Data Integration Program.

SECTION 6.10.(g) The Office of State Controller shall continue to provide quarterly written reports on the program's progress to the House of Representatives and Senate Appropriations Committees, to the Joint Legislative Oversight Committee on Information Technology, and to the Fiscal Research Division beginning October 1, 2009.

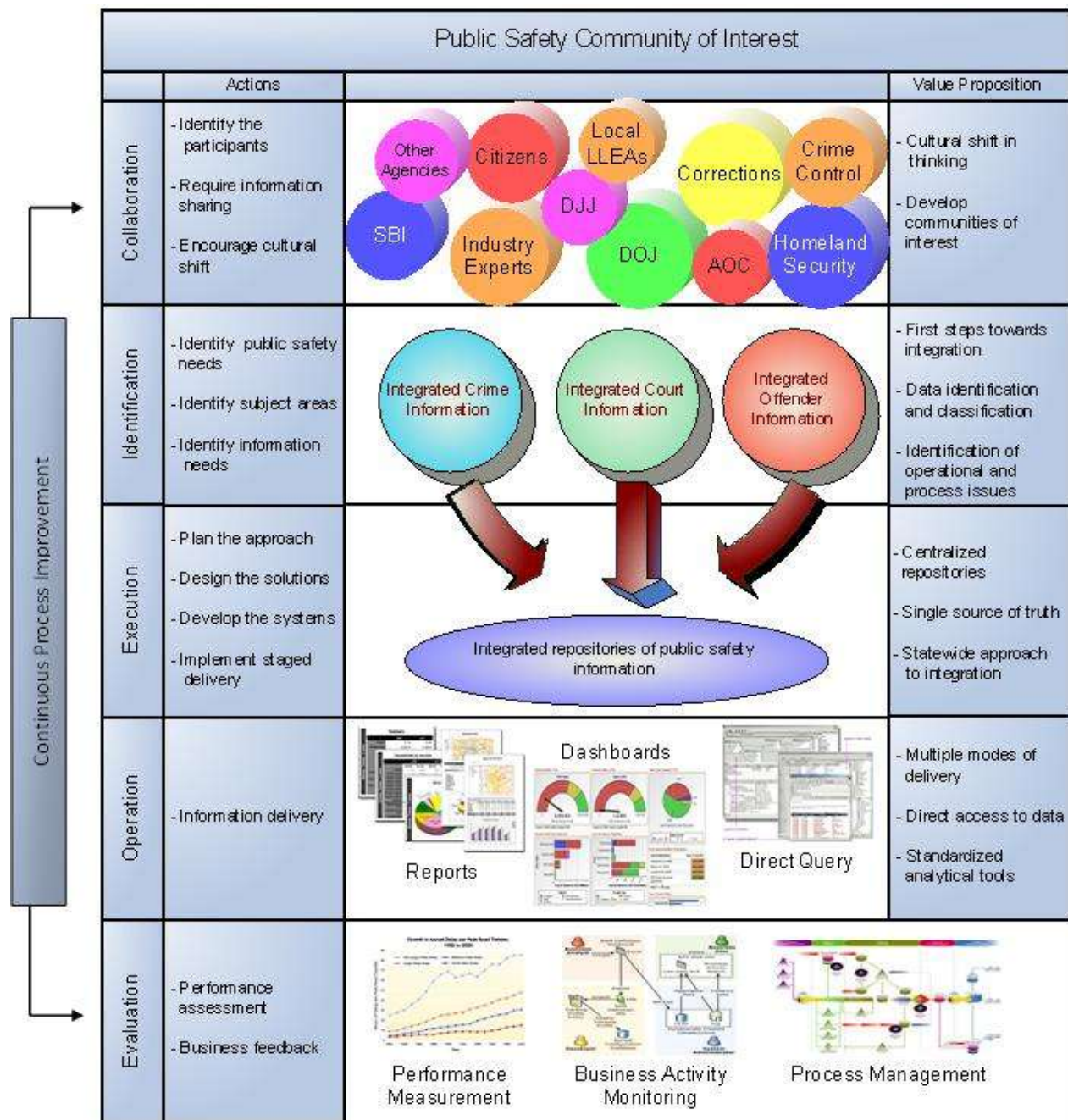
D. NCBICC Communications Hub

Open communication is critical in developing sound analytical solutions. To encourage the necessary exchange of ideas, the NCBICC will encourage a communications hub that promotes collaborative teams around the common areas of interest (e.g. finance, budget, public safety, health, transportation, etc). These communities of interest will work together to ensure that the business solutions designed are appropriately scoped to solve a range of needs rather than a siloed business domain.



E. Community of Interest

The Community of Interest depicted below is an example of a forum that could be formed to discuss public safety. This graphic illustrates the solution development lifecycle that will be employed by communities of interest to support the integration of data and the use of data analytics.



F. Current SAS Users - State Agencies and Programs

State Agencies Currently Using SAS Tools through Enterprise Licensing
Department of Agriculture
Department of Commerce
Department of Public Instruction
Department of Health & Human Services (DHHS)
Department of Administration
Department of Crime Control & Public Safety
Department of the Secretary of State
Office of the State Auditor
Office of the State Controller
Department of Insurance
Office of State Budget and Management
NC General Assembly
Department of the State Treasurer
Department of Juvenile Justice & Delinquency Prevention
Department of Revenue
Employment Security Commission
Department of Labor
Office of State Personnel
Department of Justice
Department of Environmental and Natural Resources
Department of Correction
Department of Transportation
Department of Cultural Resources
NC State Health Plan